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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,748	07/07/2003	Jimmy Wolford	MASS TECH LEAK -I	6165

7590 07/07/2004

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EXAMINER
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LARKIN, DANIEL SEAN

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/614,748

Applicant(s)

WOLFORD ET AL.

Examiner

Daniel S. Larkin

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description:

Reference numeral -- 10 -- does not appear within Figure 1 as suggested by the disclosure on page 18, line 13.

Reference numeral -- 18 -- does not appear within the drawing figures as first suggested by the disclosure on page 19, line 6.

Reference numeral -- 64 -- does not appear within Figure 1 as suggested by the disclosure on page 19, line 10.

Reference numeral -- 32 -- does not appear within Figure 1 as suggested by the disclosure on page 21, line 13.

Reference numeral -- 31 -- does not appear within the drawing figures as suggested by the disclosure on page 27, line 7.

Reference designation -- Routine 100 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 27, line 1 and page 28, line 6.

Reference designation -- Routine 200 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 27, line 2 and page 28, line 12.

Reference designation -- Routine 300 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 27, line 3 and page 30, line 3.

Reference designation -- Routine 400 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 27, lines 4 and 5 and page 30, line 10.

Reference designation -- Routine 500 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 27, line 5 and page 30, line 22.

Reference designation -- step 101 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 28, line 7.

Reference designation -- step 102 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 28, line 9.

Reference designation -- step 103 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 28, line 10.

Reference designation -- step 201 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 28, line 14.

Reference designation -- step 202 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 29, line 6.

Reference designation -- step 203 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 29, line 22.

Reference designation -- step 301 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 30, line 4.

Reference designation -- step 302 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 30, line 7.

Reference designation -- step 401 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 30, line 12.

Reference designation -- step 501 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 30, line 23.

Reference designation -- step 502 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 31, line 1.

Reference designation -- step 503 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 31, lines 2 and 3.

Reference designation -- Routine 700 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 31, line 18.

Reference designation -- step 701 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 31, line 19.

Reference designation -- step 702 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 31, line 20.

Reference designation -- step 703 -- does not appear within the drawing figures or the Annex as suggested by the disclosure on page 32, line 1.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

Reference numeral "13", as shown in Figure 1, does not appear within the written disclosure.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because of the following:

Reference character "34" has been used to designate both a "tube fitting", as shown in Figure 1, and a "current transmitter", also shown in Figure 1.

Reference character "30" has been used to designate both a "transducer high side", as shown in Figure 1, and a "data logging computer", shown in Figure 2.

4. The drawings are objected to because of the following informalities:

With respect to Figure 2, at least one more -- data transfer mean -- is needed since the disclosure recites at least three data transfer means connected to the data logging computer; however, only two lines are shown, and all the numbers (23, 39, 43) all appear to be identifying only the top data transfer mean.

Reference box "70", as shown in Figure 2, should also be labeled -- remote computer --.

5. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. The disclosure is objected to because of the following informalities:

Page 8, lines 8, 10, 13, 16: A -- period -- should be inserted after the term "detection".

Page 8, line 19: A -- period -- should be inserted after the term "removed".

Page 8, line 22: A -- period -- should be inserted after the term "involved".

Page 9, lines 3, 6, and 9: A -- period -- should be inserted after the term "detection".

Page 9, line 12: A -- period -- should be inserted after the term "changes".

Page 9, line 15: A -- period -- should be inserted after the term "stratification".

Page 9, line 18: A -- period -- should be inserted after the term "time".

Page 9, line 21: A -- period -- should be inserted after the term "preparation".

Page 10, line 2: A -- period -- should be inserted after the term "laboratory".

Page 10, lines 8, 10, 13, and 16: A -- period -- should be inserted after the term "detection".

Page 10, line 19: A -- period -- should be inserted after the term "removed".

Page 10, line 22: A -- period -- should be inserted after the term "involved".

Page 11, lines 2, 4, and 7: A -- period -- should be inserted after the term "detection".

Page 11, line 10: A -- period -- should be inserted after the term "changes".

Page 11, line 13: A -- period -- should be inserted after the term "stratification".

Page 11, line 16: A -- period -- should be inserted after the term "time".

Page 11, line 19: A -- period -- should be inserted after the term "preparation".

Page 18, line 11: The term "figure" should be corrected to read -- Fig. --, which is consistent with the drawing figure labels.

Page 20, line 10: Reference numeral "24" should be corrected to read -- 22 --.

Page 20, line 22: The term "it" should be corrected to read -- its --.

Page 22, lines 5 and 13: Reference numeral "30" should be corrected because this reference numeral has been previously used to represent the "transducer high side".



Page 22, lines 15, 18, and 20: Reference numeral "34" should be corrected because this reference numeral has been previously used to represent the "tube fitting" as disclosed on page 21, lines 17, 18, and 19.

Page 23, line 3: Reference numeral "34" should be corrected because this reference numeral has been previously used to represent the "tube fitting".

Page 23, line 5: Reference numeral "30" should be corrected because this reference numeral has been previously used to represent the "transducer high side".

Page 24, line 6: Reference numeral "30" should be corrected because this reference numeral has been previously used to represent the "transducer high side".

Page 24, line 19: The term "Barometric" should be corrected to read -- barometric --.

Page 25, lines 9, 14, and 22: Reference numeral "30" should be corrected because this reference numeral has been previously used to represent the "transducer high side".

Page 25, line 15: The phrase -- , as shown in Figure 2 -- should be inserted after reference numeral "50".

Page 25, line 20: Reference numeral "34" should be corrected because this reference numeral has been previously used to represent the "tube fitting".

Page 26, lines 13, 19, and 23: Reference numeral "30" should be corrected because this reference numeral has been previously used to represent the "transducer high side".

Page 27, line 7: Reference numeral "30" should be corrected because this reference numeral has been previously used to represent the "transducer high side".

Page 30, lines 5 and 8: Reference numeral "34" should be corrected because this reference numeral has been previously used to represent the "tube fitting".  
Appropriate correction is required.

### ***Claim Objections***

8. Claims 1-22 are objected to because of the following informalities:

Re claim 1, claim line 12: The phrase "said canister" lacks antecedent basis.

Re claim 1, claim line 17: A -- semicolon -- should be inserted after the term "liquid".

Re claim 1, claim line 51: The conjunction -- and -- should be inserted after the term "pressure".

Re claim 5, claim line 12: The phrase "said canister" lacks antecedent basis.

Re claim 5, claim line 17: A -- semicolon -- should be inserted after the term "liquid".

Re claim 5, claim lines 22 and 23: The phrase "said low side measurement component" lacks antecedent basis.

Re claim 5, claim line 24: The term -- means -- should be inserted after the term "sensor".

Re claim 5, claim line 63: The conjunction -- and -- should be inserted after the term "pressure".

Re claim 9, claim lines 10, 37, 38, 48, 54, 59, 63, 73, 76, and 77: The phrase "said storage tank" lacks antecedent basis.

Re claim 9, claim line 13: The phrase "said canister" lacks antecedent basis.

Re claim 9, claim line 18: A -- semicolon -- should be inserted after the term "liquid".

Re claim 9, claim line 56: The conjunction -- and -- should be inserted after the term "pressure".

Re claim 11, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 9.

Re claim 11, claim line 3: The phrase "said apparatus" lacks antecedent basis.

Re claim 11, claim line 4: The term -- means -- should be inserted after the term "sensor".

Re claim 12, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 9.

Re claim 12, claim line 3: The phrase "said apparatus" lacks antecedent basis.

Re claim 12, claim line 4: The term -- means -- should be inserted after the term "sensor".

Re claim 13, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 9.

Re claim 14, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 9.

Re claim 15, claim line 1: The term "apparatus" should be corrected to read

-- method -- since this claim is depended from method claim 9.

Re claim 16, claim line 3: Some method step should be inserted prior to detailing the apparatus limitations.

Re claim 16, claim lines 9, 38, 39, 42, 43, 49, 50, 59, 65, 70, 71, 84, 87, and 88:  
The phrase "said storage tank" lacks antecedent basis.

Re claim 16, claim line 12: The phrase "said canister" lacks antecedent basis.

Re claim 16, claim line 17: A -- semicolon -- should be inserted after the term "liquid".

Re claim 16, claim line 25: The term -- means -- should be inserted after the term "sensor".

Re claim 16, claim line 68: The conjunction -- and -- should be inserted after the term "pressure".

Re claim 18, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 16.

Re claim 18, claim line 3: The phrase "said apparatus" lacks antecedent basis.

Re claim 18, claim line 4: The term -- means -- should be inserted after the term "sensor".

Re claim 19, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 16.

Re claim 19, claim line 3: The phrase "said apparatus" lacks antecedent basis.

Re claim 19, claim line 4: The term -- means -- should be inserted after the term "sensor".

Re claim 20, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 16.

Re claim 21, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 16.

Re claim 22, claim line 1: The term "apparatus" should be corrected to read -- method -- since this claim is depended from method claim 16. Appropriate correction is required.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

The prior art cited is directed to apparatus used to detect leaks within a fluid filled container/tank.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2856

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin  
AU 2856  
4 July 2004



**DANIEL S. LARKIN**  
**PRIMARY EXAMINER**